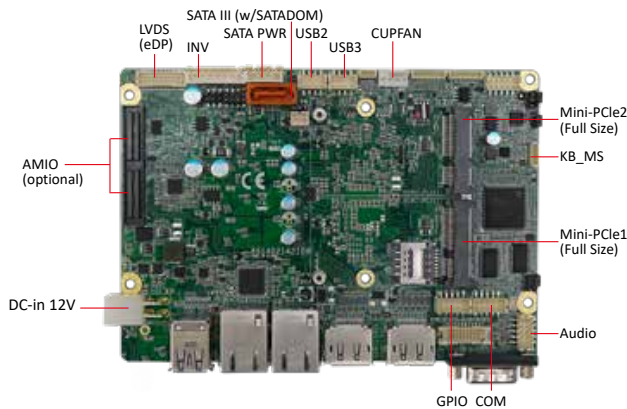


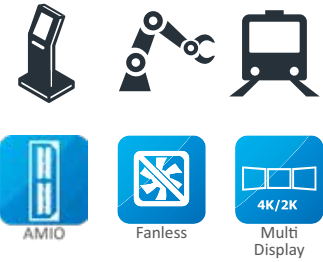
## AECX-KBL6

Intel® Kaby Lake -U Series based 3.5" Embedded board supports Intel® 7th Gen Core™ i7/i5/i3 / Celeron® processors with 2 HDMI(DP)/ LVDS(eDP), SATA III, 3 COM, 6 USB, AMIO, Dual Intel® GbE LAN.



### Product Specification

| System Processor/Chipset |                                                                                                                                                                                                                            |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor                | Intel® 7th Kaby Lake -U series processor onboard<br>Core™ i7-7600U (2.8GHz/3.9GHz, 2C/4T, 25W)<br>Core™ i5-7300U (2.6GHz/3.5GHz, 2C/4T, 25W)<br>Core™ i3-7100U (2.4GHz, 2C/4T, 15W)<br>Celeron® 3965U (2.2GHz, 2C/2T, 15W) |
| Chipset                  | Intel® Kaby Lake -U processor integrated                                                                                                                                                                                   |
| BIOS                     | AMI SPI Flash ROM                                                                                                                                                                                                          |
| Memory                   |                                                                                                                                                                                                                            |
| Technology               | DDR4 2133MHz SDRAM                                                                                                                                                                                                         |
| Max. capacity            | Up to 16GB                                                                                                                                                                                                                 |
| Socket                   | 1 x 260-pin SO-DIMM                                                                                                                                                                                                        |
| Display                  |                                                                                                                                                                                                                            |
| Graphics                 | Intel® HD Gen9 Graphics integrated                                                                                                                                                                                         |
| Display interface        | 2 x HDMI v1.4 (co-layout DP v1.2)<br>1 x LVDS(eDP) 2ch 18/24-bit (co-layout eDP)<br>1 x AMIO (DP v1.2), 1 x eDP v1.3 (optional)                                                                                            |
| Multi-display            | Up to three independent displays<br>(Celeron® processor only support Dual-display)                                                                                                                                         |
| Resolution               | DP: 3840 x 2160 @ 60Hz (max)<br>HDMI: 4096 x 2160 @ 24Hz (max)<br>LVDS: 1920 x 1200 @ 60Hz (max)<br>eDP: 1920 x 1080 @ 60Hz (max)                                                                                          |
| Ethernet                 |                                                                                                                                                                                                                            |
| Interface                | 10/100/1000 Mbps                                                                                                                                                                                                           |
| Controller               | LAN1: Intel® I219 GbE PHY w/ AMT v11.0<br>(only Core™ i7/i5 processor supports)<br>LAN2: Intel® I210 GbE                                                                                                                   |
| Connector                | 2 x RJ45 (rear I/O)                                                                                                                                                                                                        |
| Audio                    |                                                                                                                                                                                                                            |
| Interface                | Line-in, Line-out, Mic-in                                                                                                                                                                                                  |
| CODEC                    | Realtek ALC662-VD0 HD                                                                                                                                                                                                      |
| Expansion Slot           |                                                                                                                                                                                                                            |
| AMIO(optional)           | 1 x DP v1.2(optional), 1 x Line-out, 1 x LPC, 1 x PCIe(x4), 1 x SMBus, 1 x UART, 1 x USB 3.0 interface                                                                                                                     |
| Mini-PCIe                | 2 x Full size (2 combo mSATA, 1 w/ micro-SIM)                                                                                                                                                                              |
| SATA                     |                                                                                                                                                                                                                            |
| Max. data transfer rate  | 6.0Gb/s                                                                                                                                                                                                                    |
| Port                     | 1 x SATA III support SATADOM                                                                                                                                                                                               |
| I/O                      |                                                                                                                                                                                                                            |
| Audio                    | Line-in, Line-out, Mic-in (box-header)                                                                                                                                                                                     |
| USB                      | 2 x USB 3.0 (rear I/O)<br>4x USB 2.0 (box-header)                                                                                                                                                                          |
| COM                      | 2 x RS-232 (box-header) with 5V selection<br>1 x RS-232/422/485 (rear I/O)                                                                                                                                                 |
| HDMI/VGA/DVI/DP/LVDS     | 2 x HDMI (rear I/O, co-layout DP, optional)<br>1 x LVDS (box-header, co-layout eDP, optional)                                                                                                                              |
| GPIO                     | 1 x 16-bit Programmable GPIO (box-header)                                                                                                                                                                                  |
| SMBus                    | 1 x SMBus (box-header)                                                                                                                                                                                                     |



### Key Features

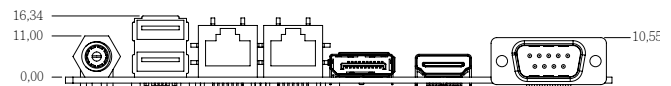
- Intel® 7th Gen Core™ i7/i5/i3 / Celeron® series processor onboard
- One 260-pin SO-DIMM up to 16GB DDR4 2133MHz SDRAM
- Multi-Display: 2 HDMI(DP)/LVDS(eDP)/AMIO (optional)
- Two Intel® Gigabit Ethernet ports
- 2 Mini-PCIe (2 combo mSATA, 1 w/ micro-SIM) expansion slots
- 1 SATA III (w/ SATADOM), 3 COM, 2 USB 3.0 and 4 USB 2.0
- Supports 4K/2K Resolution Display
- DC-in 12V; 19V ~ 24V (optional)
- EuP/ErP 2013 Ready
- Support Intel® AMT v11.0 (w/ Core™ i7/i5 processors)

| Power Requirement     |                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------|
| Power connector       | 1 x ATX (2x2-pin) or DC-Jack screw type (optional)                                                                  |
| Power type            | DC-in 12V or DC-in 19V~24V (optional)                                                                               |
| Power mode            | AT / ATX (by jumper selection)                                                                                      |
| Watchdog Timer        |                                                                                                                     |
| Interval              | Programmable 1~255 sec/min                                                                                          |
| Output                | System reset                                                                                                        |
| Environment           |                                                                                                                     |
| Operating temperature | 0°C ~ 60°C (32°F ~ 140°F) standard<br>-20°C ~ 70°C (-4°F ~ 158°F) optional<br>-40°C ~ 70°C (-40°F ~ 158°F) optional |
| Storage temperature   | -40°C ~ 80°C (-40°F ~ 176°F)                                                                                        |
| Relative humidity     | 0% ~ 95% (non-condensing)                                                                                           |
| Form Factor           |                                                                                                                     |
| Dimensions (L x W)    | 3.5" Embedded Board<br>146mm x 102mm (5.75" x 4.01")                                                                |

### Rear I/O



### Dimensions



### Ordering Information

| Part Number          | Description                                                                     |
|----------------------|---------------------------------------------------------------------------------|
| AECX-KBL6-7600 (MOQ) | 3.5", Intel Core i7-7600U 25W, HDMI/DP/LVDS, SATA/3COM/6USB/2LAN, DC(12V)/ATX4P |
| AECX-KBL6-7300 (MOQ) | 3.5", Intel Core i5-7300U 25W, HDMI/DP/LVDS, SATA/3COM/6USB/2LAN, DC(12V)/ATX4P |
| AECX-KBL6-7100 (MOQ) | 3.5", Intel Core i3-7100U 15W, HDMI/DP/LVDS, SATA/3COM/6USB/2LAN, DC(12V)/ATX4P |
| AECX-KBL6-3965 (MOQ) | 3.5", Intel Celeron 3965U 15W, HDMI/DP/LVDS, SATA/3COM/6USB/2LAN, DC(12V)/ATX4P |

### Optional Accessories

| Part Number  | Description      |
|--------------|------------------|
| VK00000700A9 | SATA cable       |
| VK00002600A9 | SATA power cable |
| TBD          | Heatsink w/o FAN |
| TBD          | Heat spreader    |

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

### US

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +1 347 719 4508

Support: +1 347 719 4508

1309 Coffeen Ave  
Ste 1200  
Sheridan  
WY 82801  
USA

### EMEA

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +44 (0)1785 879 050

Support: +44 (0)1785 879 050

Unit A5 Douglas Park  
Stone Business Park  
Stone  
ST15 0YJ  
United Kingdom

VAT Number: 120 9546 28

Business Registration Number: 07699660